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Evaluation of Ground-Water Extraction Remedies

Volume 3
General Site Data
Data Base Reports

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Notice

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INTRODUCTION

This volume is the third of a three-volume report documenting the results of an evaluation of ground-water extraction remedies at hazardous waste sites. It consists of a collection of 112 data base reports presenting general information on sites where ground-water extraction systems are in various stages of planning or implementation. This information was collected under EPA Contract No. 68-W8-009B.

Volume 1 is the summary report presenting the general conclusions and observations of the study. It is based on a theoretical review and on a series of detailed case studies of individual sites. Volume 1 describes the methodology of the study, the factors that influence the effectiveness of ground-water extraction systems, and the data requirements for the design of extraction systems.

Volume 2 presents 19 case studies of individual sites where ground-water extraction systems have been implemented. The case studies discuss site characteristics and the performance of the ground-water extraction systems at the selected sites in considerably greater detail than the data base reports presented here.

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EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   25TH STREET WELLFIELD, FL IV

2. Program
   Other, MUNICIPAL

3. Contact person
   ROBERT F. CARR/FT. PIERCE UTILITIES AUTHORITY

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Well head treatment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, WELL FIELD

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Other...SHELL

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction began in 1985.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AIR PRODUCTS & CHEMICALS, NJ II

2. Program
   State Lead, ECRA

3. Contact person
   KEN SMITH/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Reinjection

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.
    Soil flushing in the vadose zone with infiltration beds.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    In construction stage, no extraction in progress

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AIRCO, WV III

2. Program
   RCRA, AND STATE LEAD

3. Contact person
   JEROME CIBRIK/WV DNR

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Unknown, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Interbedded Sediments

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AMERICAN CYANAMID, WV III

2. Program
   Other, CWA

3. Contact person
   JON HUNDERTMARK/EPA REGION III WATER DIV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Unknown

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AMERICAN CYANAMID, FL IV

2. Program
   RCRA

3. Contact person
   NEIL SCHARITZ/AMERICAN CYANAMID, PENSACOLA, FL

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   SUBMERSIBLE PUMPS

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    - o Two recovery wells online since late 1986
    - o Third well is waiting for EPA approval

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AMERICAN WOOD TREATING, MS IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Finalizing corrective action plan.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AMPHENOL, NY II

2. Program
   RCRA, AND STATE LEAD

3. Contact person
   WAYNE BARTO/AMPHENOL INC., SIDNEY, NEW YORK

4. Objective of Groundwater Extraction

   Interim objective(s)... Aquifer restoration
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand Gravel

10. Describe special features of interest.
    Flow influenced by nearby river level

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    - o Soil remediated in late 1986.
    - o Ground-water remediation began in January 1987.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ANDERSON CORPORATION, MN V

2. Program
   State Lead

3. Contact person
   MIKE VENNEWITZ/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Clay Sand Gravel

10. Describe special features of interest.
    PCP is more dense than water but the mixtures of milltreat E and milltreat F is less dense than water.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pumping in progress as part of interim remedial action:

    Phase I = 3 wells started in 1982
    Phase II = 3 more wells started in 1983
    Phase III = 2 more wells started in 1987

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ANNISTON ARMY DEPOT, AL IV

2. Program
   DOD

3. Contact person
   JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Ammunition dump, MANUFAC. PLANT

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Final planning for extraction well installation, wells not yet installed.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   AREA D -- McCLELLAN AFB, CA IX

2. Program
   DOD

3. Contact person
   ENVIRONMENTAL COORDINATOR/McCLELLAN AFB

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction began in 1987

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BALDWIN POLE & PILING, AL IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER, JOANNE BENANTE/EPA REG IV, RCRA

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   AND TRENCHES

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design/permitting stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BAYOU BONFOUCA, LA VI

2. Program
   Superfund

3. Contact person
   ROBERT GRISWOLD/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Well head treatment, & NONAQUEOUS R
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, CREOSOTING

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Some more dense than water and some less dense than water.

9. What are the aquifer materials?

   Silt Sand Fractured Rock

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pilot system operation just about to begin

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BERKS SAND PIT, PA III

2. Program
   Superfund

3. Contact person
   PAT MCMANUS/EPA REGION III

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, OPEN PIT

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Fractured Rock

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial design workplan is in review.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BF GOODRICH, KY IV

2. Program
   Superfund

3. Contact person
   DAVID KLUESNER, JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Clay Silt Sand Gravel Interbedded Sediments Other...RIVER ALLUVIUM

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design Stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BFI/CECOS, LA VI

2. Program
   RCRA

3. Contact person
   STEVE SLATEN/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   Yes, Some more dense than water and some less dense than water.

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    Downward gradient carrying contamination towards regional drinking water supply

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    - o Some recovery of concentrated areas.
    - o System not complete.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BLACK AND DECKER, NY II

2. Program
   RCRA

3. Contact person
   PAUL HARE/DUNN GEOSCIENCE, ALBANY, NY

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Fractured Rock Other...SANDSTONE

10. Describe special features of interest.
    Two hydraulically interconnected aquifers. Corrective action involves groundwater recovery from a single well located in an artificially produced fracture zone.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Long term remediation initiated in May 1988. Continuous remediation initiated in October 1988. Maybe too soon to evaluate treatement system.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BLOSENSKI LANDFILL, PA III

2. Program
   Superfund

3. Contact person
   JEFF WINEGAR/EPA REGION III

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, WELLHEAD TREAT.
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Fractured Rock

10. Describe special features of interest.
    Over 60 lineament traces have been identified in project area.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study (predesign) stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BOEING OF PORTLAND, OR X

2. Program
   RCRA

3. Contact person
   WAYNE PIERRE, RENE FUENTES/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.
    Potential multi-aquifer contamination

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Plan to begin extraction in 1989.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BTL SPECIALTY RESINS CORP, NY II

2. Program
   RCRA

3. Contact person
   YAVUC ERK/NY STATE DEC

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel Fractured Rock

10. Describe special features of interest.
    No on-site treatment
    Discharge to wastestream (sewer) to off-site treatment
    Pumping rate designed not to exceed "allotment" to off-site sewer

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction on-going since late February 1989.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   BURLINGTON NORTHERN RR, MN V

2. Program
   State Lead

3. Contact person
   KEN HABERMAN/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s).... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   High sorption, Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand Gravel Other...GLACIAL TILL

10. Describe special features of interest.
    Perched water below a treatment lagoon

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pumping is in progress

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   CAPE FEAR WOOD PRESERVING, NC IV

2. Program
   Superfund

3. Contact person
   RICH MUZA, JON BORNHOLM/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)...: Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Well Points, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   High sorption, Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand Interbedded Sediments

10. Describe special features of interest.
    Well point system planned to remediate 10,000 square feet subareas of the surfiial aquifers at a time

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pre-design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   CAVENHAM CORPORATION, MS IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Well installation stage

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Well installation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   CAVENHAM CORPORATION, AL IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Design/permitting stage

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Well installation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   CHEMTRONICS SITE, NC IV

2. Program
   Superfund

3. Contact person
   RICH MUZA, JON BORNHOLM/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Fractured Rock Other...SAPROLITE

10. Describe special features of interest.
    Multi-aquifer contamination

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   CIBA - GEIGY, AL IV

2. Program
   Superfund, AND RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    There has been pumping at the site for about 2 years.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   COLEMAN-EVANS WOOD PRESRV, FL IV

2. Program
   Superfund

3. Contact person
   CAMILLA WARREN, BEVERLY HOUSTON/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial Design is greater than 90% complete.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   CONOCO REFINING, OK VI

2. Program
   RCRA

3. Contact person
   STEVE SLATEN/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, Non-aqueous Rec
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Reinjection

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    - o Offsite contamination in residential basements
    - o Enhanced bioremediation to clean low levels
    - o Injection producing barrier mounds

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation underway

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   COOPER BIOMEDICAL, INC., NJ II

2. Program
   State Lead, ECRA

3. Contact person
   KEN SMITH/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Well Points, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Sand Gravel

10. Describe special features of interest.
    Multiple well points attached to a vacuum system (21 well points).

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction started in March, 1988.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   DES MOINES TCE, IA VII

2. Program
   Superfund

3. Contact person
   L.D. MACMILLAN/DES MOINES WATER WORKS

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    Near infiltration galleries supplying water to Des Moines

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Full extraction system operation started December 17, 1987.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   DISTLER BRICKYARD, KY IV

2. Program
   Superfund

3. Contact person
   FELICIA BARNETT, JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Reinjection

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand Gravel Other...RIVER ALLUVIUM

10. Describe special features of interest.
    Two interconnected aquifers controlled by bedrock structure (erosional surface).

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation in progress

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   DISTLER FARM, KY IV

2. Program
   Superfund

3. Contact person
   FELICIA BARNETT, JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    Very large diameter wells actually function more like a trench but were cheaper to construct. Low permeability aquifer.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation underway

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   DRAKE CHEMICAL, PA III

2. Program
   Superfund

3. Contact person
   ROY SCHROCK/EPA REGION III

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

10. Describe special features of interest.
    Biological activated carbon treatment

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Just beginning groundwater remedial design

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   DUPONT - AXIS, AL IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Sand

10. Describe special features of interest.
    Heavy pumping bordering propeerty may capture part of plume. Source soils have not been removed

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    First 2 extraction wells began in December 1985. A third well was added in 1986.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ELECTRONIC CONTROLS CORP., MA I

2. Program
   RCRA

3. Contact person
   JEFF CHORMANN/MASSACHUSETTS DEQE, BOSTON

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    - o Losing stream adjacent to site
    - o Public Municipal well less than 500 feet downgradient with trace levels of organics
    - o Facility has its own pumping wells onsite for cooling water

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study stage -- late stages of investigative -- source/plume assessment. Design phase expected this summer (pump testing of aquifer).

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ELECTRONIC INDUSTRIES, MN V

2. Program
   State Lead

3. Contact person
   JERRY STONKE/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    One well pumping at 2 to 3 gpm since 1985.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   EMERSON ELECTRIC, FL IV

2. Program
   State Lead

3. Contact person
   JAMES BRECK DALTON/FL DER

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Sand Limestone

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remediation started in December 1984.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ENSCO, AR VI

2. Program
   RCRA

3. Contact person
   STEVE SLATEN/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   AND TRENCHES

6. Type of Site
   Other, AMOCO REFINERY

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Clay Sand

10. Describe special features of interest.
    Site is on top of a major fault leading to regional drinking water.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Some extraction of high chlorides -- french drains catching some floaters. RCRA RFI in progress.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   EVANITE BATTERY SEPARATOR, OR X

2. Program
   RCRA, AND STATE LEAD

3. Contact person
   CHRISTY AHLSTROM/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, NAPL RECOVERY
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand Gravel

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction wells have been installed; full-scale implementation to begin upon permit issuance.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FAIRCHILD SEMICONDUCTOR, CA IX

2. Program
   State Lead

3. Contact person
   WILFRED BRUHNS/REG WATER CONTR BOARD, OAKLAND CA

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Clay Silt Sand Gravel

10. Describe special features of interest.
    The A aquifer is generally dry and is connected to the B aquifer beneath the site. The B-C aquitard is about 50 feet thick. The B and C aquifers are areally extensive and are used for drinking water. Only one drinking water production well is located within the area affected by the site. The D aquifer is not areally extensive and is not a major source of water.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation stage; extraction has been ongoing since 1982. Extraction from C aquifer was terminated on September 6, 1988. Interim remedial measures have been implemented.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FERNWOOD WOOD TREATING CO, MS IV

2. Program
   RCRA

3. Contact person
   JASON DARBY/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Finalizing correction action plan

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FMC CORPORATION, NY II

2. Program
   Superfund, AND RCRA

3. Contact person
   YAVUS ERK, MATTHEW MORTFOLIO/NY STATE DEC

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   Yes, Unknown

9. What are the aquifer materials?

   Sand Gravel Fractured Rock Limestone

10. Describe special features of interest.
    4 pumping wells -- 80 feet into Lockport limestone -- since February 1988 all wells were pumped at 4 gpm to off-site treatment (Seacoast International). Later onsite treatment -- ion exchange, carbon filters at 40 gpm

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction on-going since February 1988

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FMC CORPORATION, MN V

2. Program
   State Lead

3. Contact person
   DALE THOMPSON/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Surface aquifer and St. Peter sandstone are contaminated

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pumping started in 1987

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FORD MOTOR CO, NJ II

2. Program
   State Lead, ECRA

3. Contact person
   KEN SMITH/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Little data is in the file about the design, operation or effectiveness of the system

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction began in October, 1986. There is no extraction in the winter months.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FRONTIER HARD CHROME, WA X

2. Program
   Superfund

3. Contact person
   KEVIN ROCHLIN, RENE FUENTES/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    Two shallow aquifers separated by clay aquitard with at least a few windows interconnecting them.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Starting design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   FRUEHAUF CORPORATION, AL IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Well installation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GEIGER/C&M OIL, SC IV

2. Program
   Superfund

3. Contact person
   AL CHERRY, JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study stage -- pump and treat being re-evaluated.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GENERAL ELECTRIC/EAST ST, MA I

2. Program
   RCRA, AND STATE LEAD

3. Contact person
   KEVIN SHEEHAN/MASSACHUSETTS DEQE, SPRINGFIELD

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Trenches, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    2 years in operation, evaluation of ROD requirement

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    2 years in operation, evaluation of ROD requirement

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-0009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GENERAL ELECTRIC/PINNELAS, FL IV

2. Program
   DOE

3. Contact person
   ERIC NUZIE/FL DER

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.
    Well installation and some pumping

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Well installation and some pumping

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GENERAL MILLS, MN V

2. Program
   State Lead

3. Contact person
   KATHY KRAMER/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Fractured Rock Other...SANDSTONE

10. Describe special features of interest.
    Multi-aquifer contamination -- groundwater in different strata moves in different directions

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Some extraction of high chlorides -- French drains catching some floaters. RCRA RFI in progress.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GENRAD CORPORATION, MA I

2. Program
   RCRA

3. Contact person
   JEFF CHORMANN, CHET MASEWSKI/MA DEQE, BOSTON

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    Both unconsolidated and bedrock aquifers are contaminated. Near-by surface waters are intercepting a portion of the contamination.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction/plume containment entering third season. Decisions on additional extraction wells within concentrated portions of plume are being considered.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GILSON ROADS, MA I

2. Program
   Superfund

3. Contact person
   DICK WILLEY/EPA REGION I

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel Fractured Rock Interbedded Sediments

10. Describe special features of interest.
    - o Pump and treat stripping tower/carbon filter
    - o Slurry wall surrounds entire site

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    2 years in operation, evaluation of ROD requirement

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GREAT LAKES CHEMICAL CORP, AR VI

2. Program
   RCRA, AND STATE LEAD

3. Contact person
   STEVE SLATEN/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   AND TRENCHES

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Sand

10. Describe special features of interest.
    200 feet thick "beach sand" -- high contamination (up to 400,000 ppm TDS). Offsite contamination not yet addressed -- 500 onsite monitoring wells.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study/design phase

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   GROVELAND WELLS, MA I

2. Program
   Superfund

3. Contact person
   JAY NAPARSTEK/MASSACHUSETTS DEQE, BOSTON

4. Objective of Groundwater Extraction

   Interim objective(s)... Well head treatment
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Shallow bedrock and overburden contamination

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial design for operable unit I/Remedial investigation for operable unit II

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   HARRIS CORPORATION, FL IV

2. Program
   Superfund, AND RCRA

3. Contact person
   ROBERT SANDS/HARRIS CORP., MELBOURNE, FL

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, WELL HEAD TRTMT
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    Two separate treatment systems: 1) at GDU 2) at Harris

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    GDU startup: 4/84
    Harris stage 1 and 2: 5/85
    Harris stage 3: 9/85

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   HELEVA LANDFILL, PA III

2. Program
   Superfund

3. Contact person
   RICHARD WATMAN/EPA REGION III

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Unknown, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Limestone

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   HOECHST/CELANESE NPL SITE, NC IV

2. Program
   Superfund

3. Contact person
   MICHELLE GLENN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Fractured Rock

10. Describe special features of interest.
    Two-tiered extraction system, one set of wells near the source areas, another near the property boundaries. Treated ground-water to be re-used and discharged through NPDES outfall.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Final design and system start-up. Extraction to begin within 2-3 months.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   IBM - DAYTON, NJ II

2. Program
   State Lead

3. Contact person
   GEORGE CAMPBELL/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Clay Sand Gravel

10. Describe special features of interest.
    Remediation appeared complete and was stopped in September 1984 but concentrations of contaminants rose. System will be turned on again in 1989. Containment, not restoration will be the new objective because of DNAPLs

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Problem discovered: December 1977
    Extraction: March 1978 to Sepember 1984
    Shutoff: September 1984

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   IBM -- SAN JOSE, CA IX

2. Program
   State Lead

3. Contact person
   PHIL MITCHELL/IBM CORP., SAN JOSE, CA

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, NONAQUEOUS
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand Gravel

10. Describe special features of interest.
    Multi-aquifer contamination

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction started at several locations. Start dates were May 1982 to December 1985.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   INDIAN BEND WASH, AZ IX

2. Program
   Superfund

3. Contact person
   JEFF ROSENBLOOM/EPA REGION IX

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping
   AND REINJECTION

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Gravel Other...ALLUVIAL FILL

10. Describe special features of interest.
    Multi-aquifer interconnection

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial design

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   INTERNATIONAL PAPER CO., MS IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.
    ACLs issued.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Well installation and some pumping

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   KURT MANUFACTURING, MN V

2. Program
   State Lead

3. Contact person
   ENRIQUE GENTZSCH/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Unknown

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

10. Describe special features of interest.
    Unable to pump significant volumes of water

11. What stage in the study/design/implementation process is this site? Is extraction in progress?

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   M-AREA SAVANNAH RIVER PLT, SC IV

2. Program
   DOE

3. Contact person
   HARRY MATHIS/SC DHEC

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand Interbedded Sediments

10. Describe special features of interest.
    Water table 60 -120 feet below land surface (BLS)

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation phase

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   MEPCO/ELECTRA, NJ II

2. Program
   State Lead, NJ ECRA

3. Contact person
   KEN SMITH/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   MILLCREEK, PA III

2. Program
   Superfund

3. Contact person
   ANTHONY KOLLER/EPA REGION III

4. Objective of Groundwater Extraction

   Interim objective(s)... Leachate collection
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Trenches, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand Gravel

10. Describe special features of interest.
    Adjacent to Lake Erie

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design phase

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   MOBAY CORPORATION, TX VI

2. Program
   RCRA

3. Contact person
   MARIA DANIEL/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Trenches, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand Interbedded Sediments

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    No extraction at the present time. Study/design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   MOBAY CORPORATION, WV III

2. Program
   RCRA

3. Contact person
   DOUG DONER/EPA REGION III

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Unknown, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   NATIONAL STARCH & CHEM..., NC IV

2. Program
   Superfund

3. Contact person
   RICH MUZA, GIEZELLE BENNETT/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Fractured Rock Other...SAPROLITE

10. Describe special features of interest.
    Multi-aquifer contamination

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pre-design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   NICHOLS ENGINEERING, NJ II

2. Program
   State Lead

3. Contact person
   KEN SMITH/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, COMBUSTION LAB

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Fractured Rock Other...SHALE

10. Describe special features of interest.
    Flow is mainly fracture flow

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    One well began January 22, 1988. Two more extraction wells began in January 1989.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   NORTHERN TELECOM, FL IV

2. Program
   Other, NONE

3. Contact person
   JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Reinjection

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.
    Aquifer has high permeability, low organic carbon. Pulsed pumping of nearby municipal well led to added dispersion of contaminants

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction began in early 1988

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   NORTHSIDE LANDFILL, WA X

2. Program
   Superfund

3. Contact person
   NEIL THOMPSON, RENE FUENTES/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, LANDFILL

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    Contamination appears to be found along contact with valley wall in shallower areas

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Planned stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   OLIN CHEMICAL, KY IV

2. Program
   State Lead

3. Contact person
   LAURA HOSKINS/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand Gravel Limestone

10. Describe special features of interest.
    Ranney wells used for extraction

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Ranney wells used for extraction

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   OLIN CORP, AL IV

2. Program
   RCRA

3. Contact person
   ARNOLD FELDMAN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Plume is 4000 feet long. Four wells pumping 130 gpm each, each well has individual treatment plant.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Have been pumping about 2 years.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
PALMETTO WOOD, SC IV

2. Program
Superfund

3. Contact person
BART REEDY/EPA REGION IV

4. Objective of Groundwater Extraction

Interim objective(s)... Unknown
Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
Drilled Wells, no system enhancements

6. Type of Site
Manufacturing/processing plant

7. What type of contaminants are involved?
Organics and Metals

8. Are nonaqueous liquids present?
No

9. What are the aquifer materials?

Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
Finalizing feasibility study, extraction system has been modelled.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   PENSACOLA NAVAL AIR STA., FL IV

2. Program
   DOD

3. Contact person
   K. MICHAEL GREEN/SOUTH DIV., NFEC, CHARLESTON SC

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, WWTP

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Sand

10. Describe special features of interest.
    Automatic standby pumps to maintain continuity of action

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction has been ongoing since February 6, 1987

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   PERDIDO, AL IV

2. Program
   Superfund

3. Contact person
   CAMILLA WARREN, BEVERLY HOUSTON/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, TRAIN WRECK

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    3 extraction wells pumping 10 gpm each

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial Design

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   PERMAPOST PRODUCTS CO., OR X

2. Program
   RCRA, AND STATE LEAD

3. Contact person
   CHRISTY AHLSTROM/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   High sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design completed; implementation to begin when permit is issued.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   PHOENIX-GOODYEAR AIRPORT, AZ IX

2. Program
   Superfund

3. Contact person
   JEFF ROSENBLOOM/EPA REGION IX

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping
   AND REINJECTION

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Other...ALLUVIAL MATERI

10. Describe special features of interest.
    Aquifer interconnection

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial action

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   PONDERS CORNER, WA X

2. Program
   Superfund

3. Contact person
   JANET O'HARA/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Well head treatment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, DRY CLEANERS

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    There is also a soil vapor extraction system

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation is underway

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   REICHHOLD CHEMICAL, WA X

2. Program
   RCRA

3. Contact person
   MARGARET SMALL/EPA REGION X, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   AND TRENCHES

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand Gravel Interbedded Sediments Other...DREDGE SPOILS

10. Describe special features of interest.
    Upper aquifer - trench with extraction system to prevent runoff (plume containment)
    Intermediate aquifer - extraction systems to contain plume and restore aquifer

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design and implementation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   REICHHOLD PENSACOLA, FL IV

2. Program
   Other, PRIVATE INDUSTR

3. Contact person
   ED CHILVERS/FL DER, PENSACOLA, FL

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, AND NONAQUEOUS
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Other

6. Type of Site
   Other, SURFACE IMPOUND

7. What type of contaminants are involved?
   High sorption, Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Innovative technology: Pneumatic pump chosen as the remedy during the pilot study

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Construction phase (of the oil/water separator)

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ROCKY MOUNTAIN ARSENSAL, CO VIII

2. Program
   DOD

3. Contact person
   JAMES HANLEY/EPA REGION VIII

4. Objective of Groundwater Extraction

   Interim objective(s)... Other, ALL: P,L,W,N
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, NERVE GAS & PST

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   Yes, Some more dense than water and some less dense than water.

9. What are the aquifer materials?

   Silt Sand Gravel

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    completing remedial investigation

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ROLLINS - BATON ROUGE, LA VI

2. Program
   RCRA

3. Contact person
   STEVE SLATEN/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand Interbedded Sediments

10. Describe special features of interest.
    3 "zones" of contamination -- limited interconnection

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pumping underway -- studies to determine best system

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SAPP BATTERY, FL IV

2. Program
   Superfund

3. Contact person
   MARTHA BERRY, JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Metals

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand Other...SINKHOLE SEDIM.

10. Describe special features of interest.
    Numerous sinkholes onsite that may be pathways for vertical migration.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SCRDI/DIXIANA NPL SITE, SC IV

2. Program
   Superfund

3. Contact person
   MICHELLE GLENN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Interbedded Sediments

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Final design. Extraction to begin in 3-6 months

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SEYMOUR RECYCLING, IN V

2. Program
   Superfund

3. Contact person
   MARGARET PEARCE/EPA REGION V

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, SOLVENT RECYCLE

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    Multi-aquifer contamination -- minimal contamination in the lower, cleaning up the upper. Treating the upper with 1) air stripping system 3) multimedia filter 3) carbon absorption columns 4) discharges to Seymour sewer system

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Starting design

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SIDNEY MINE, FL IV

2. Program
   RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Other
   Well Points & Trench

6. Type of Site
   Other, PHOSPHATE MINE

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Sand

10. Describe special features of interest.
    "Aquifer" is artificial product of mining process

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SITE A, FL IV

2. Program
   Superfund

3. Contact person
   NICK CETO/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Limestone

10. Describe special features of interest.
    Plume extent not known to south of site.
    Monitoring network not dense

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction in progress from August 1988 to January 1989

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SODYECO SITE, NC IV

2. Program
   Superfund, AND RCRA

3. Contact person
   RICH MUZA, GIEZELLE BENNETT/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Fractured Rock Other...SAPROLITE

10. Describe special features of interest.
    Extraction networks designed for four CERCLA areas

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Remedial design

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   SPARTAN TECHNOLOGY, NM VI

2. Program
   RCRA

3. Contact person
   BOBBY WILLIAMS/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.
    Two aquifer layers are involved. They are starting with the shallow aquifer and will progress to the deep one later.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction started about 3 months ago.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   STAUFFER - ICI, AL IV

2. Program
   Superfund, AND RCRA

3. Contact person
   BEVERLY FOSTER/EPA REGION IV, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Metals

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Have been pumping for several years

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   TEXAS EASTMAN, TX VI

2. Program
   RCRA

3. Contact person
   MARIA DANIEL/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand Interbedded Sediments

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction in progress

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   TEXAS ECOLOGISTS, TX VI

2. Program
   RCRA

3. Contact person
   MARIA DANIEL/EPA REGION VI

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, LEACHATE COLLEC
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   AND TRENCHES

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics and Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pumping/trench sump evacuation in progress. Studies are required to determine adequacy/extent of plume.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   TIME OIL SITE, WA X

2. Program
   Superfund

3. Contact person
   KEVIN ROCHLIN, RENE FUENTES/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Aquifer restoration
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Silt Sand Gravel

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction in progress since May 1988

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   TOMAH PRODUCTS, NJ II

2. Program
   State Lead, ECRA

3. Contact person
   KEN SMITH/NJ DEP

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction started in 1984. Documentation of system operation and progress is poor.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   TOWER CHEMICAL, FL IV

2. Program
   Superfund

3. Contact person
   JOHN VARGO, JEFF STARN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   High sorption, Organics and Metals

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Clay Sand Interbedded Sediments

10. Describe special features of interest.
    Extraction well in relic sinkhole.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   TUSCON INT'L AIRPORT AREA, AZ IX

2. Program
   Superfund

3. Contact person
   DANIEL OPALSKI/EPA REGION IX

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Reinjection

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Interbedded Sediments

10. Describe special features of interest.
    Multi-aquifer contamination. Several extraction systems will be in operation within close proximity of one another.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation stage for DOD part of the site.
    Approaching design stage for remainder of the site

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   UN-NAMED, FL IV

2. Program
   Other, PRIVATELY OWNED

3. Contact person
   JEFF STARN, NICK CETO/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Have been pumping for several months

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   UNION CARBIDE, PONCE, PR II

2. Program
   RCRA

3. Contact person
   STEVE KNIGHT/EPA REGION II

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Some more dense than water and some less dense than water.

9. What are the aquifer materials?

   Interbedded Sediments Other...ALLUVIAL SEDIMT

10. Describe special features of interest.
    Need to avoid emulsifying the NAPL

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   UNITED CHROME PRODUCTS, OR X

2. Program
   Superfund

3. Contact person
   LOREN MCPHILLIPS/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Well Points, Pulsed Pumping

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Metals

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Shallow aquifer highly contaminated, deeper aquifer somewhat contaminated.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   UPJOHN, PR II

2. Program
   Superfund, AND RCRA

3. Contact person
   STEVE KNIGHT/EPA REGION II

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Interbedded Sediments Limestone

10. Describe special features of interest.
    Multi-aquifer, sediments and karst

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Construction stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   UTAH POWER & LIGHT CO., ID X

2. Program
   RCRA

3. Contact person
   MARGARET SMALL/EPA REGION X, RCRA BRANCH

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Other, WOOD TREATER

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand Gravel Fractured Rock Other...FRACT. BASALT

10. Describe special features of interest.
    Ground water contamination 130 feet below the ground surface.
    Contamination in the two uppermost aquifers

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction on-going

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   VERONA WELL FIELD, MI V

2. Program
   Superfund

3. Contact person
   MARGARET GUERRIERO/EPA REGION V

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Unknown

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Less dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.
    Innovative technology: Soil vapor extraction

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Innovative technology: Soil vapor extraction

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   VILLE MERCIER, QUEBE,

2. Program
   Other, ENVIR. CANADA

3. Contact person
   QUEBEC MINISTRY OF ENVIRONMENT

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   High and Low sorption, Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Fractured Rock Interbedded Sediments Other...GLACIAL SEDIMNT

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction started in 1984

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   W.R. GRACE, MA I

2. Program
   Superfund

3. Contact person
   JAY NAPARSTEK/MASSACHUSETTS DEQE, BOSTON

4. Objective of Groundwater Extraction

   Interim objective(s)... Well head treatment
   Final objective(s)... Plume containment

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation in progress

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WAMCHEM SITE, SC IV

2. Program
   Superfund

3. Contact person
   RICH MUZA, GIEZELLE BENNETT/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Pre-design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WESTERN PROCESSING, WA X

2. Program
   Superfund

3. Contact person
   JUDI SCHWARZ/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Reinjection
   Well Points

6. Type of Site
   Hazardous waste dump

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Clay Silt Sand Interbedded Sediments

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Implementation stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WHITTACKER SITE, MN V

2. Program
   State Lead

3. Contact person
   PAUL DURKEE/MPCA

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements
   EXCAVATED SUMP

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction began in 1985

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WILSON CORNERS (KSC), FL IV

2. Program
   RCRA

3. Contact person
   DAVID BRENTZEL/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Other, ROCKET PARTS

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.
    Barrier Island setting

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Design stage

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WOOD TREATING, INC., MS IV

2. Program
   RCRA

3. Contact person
   NANCY BETHUNE/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Nonaqueous liquid recovery
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, More dense than water.

9. What are the aquifer materials?

   Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Finalizing corrective action plan.

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-0U9B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WURTSMITH AFB, MI V

2. Program
   DOD

3. Contact person
   ENVIRONMENTAL COORDINATOR/WURTSMITH AFB

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   UST

7. What type of contaminants are involved?
   Low sorption, Organics

8. Are nonaqueous liquids present?
   No

9. What are the aquifer materials?

   Sand Gravel

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Extraction began in 1981

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   WYCKOFF EAGLE HARBOR, WA X

2. Program
   Superfund

3. Contact person
   DAVID TETTA, RENE FUENTES/EPA REGION X

4. Objective of Groundwater Extraction

   Interim objective(s)... Plume containment, & AQUIFER RES
   Final objective(s)... Nonaqueous liquid recovery

5. Type of Extraction System and System Enhancements:
   Drilled Wells, Pulsed Pumping

6. Type of Site
   Manufacturing/processing plant

7. What type of contaminants are involved?
   Organics

8. Are nonaqueous liquids present?
   Yes, Some more dense than water and some less dense than water.

9. What are the aquifer materials?

   Clay Silt Sand

10. Describe special features of interest.
    Site adjacent to Puget Sound where tidal fluctuations can be greater than 12 feet.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    ERA (expedited response action); extraction in progress for floating oils; extraction for water planned for summer 1989, waiting for treatment plant design and construction

12. Dates of ROD or other milestones

EVALUATION OF GROUNDWATER EXTRACTION REMEDIES
EPA CONTRACT NO. 68-W8-009B
GENERAL SITE DATA

DATA BASE REPORT

1. Site name and location/EPA Region
   ZELLWOOD, FL IV

2. Program
   Superfund

3. Contact person
   KAY CLEGHORN/EPA REGION IV

4. Objective of Groundwater Extraction

   Interim objective(s)... Unknown
   Final objective(s)... Aquifer restoration

5. Type of Extraction System and System Enhancements:
   Drilled Wells, no system enhancements

6. Type of Site
   Manufacturing/processing plant, HAZ WASTE DUMP

7. What type of contaminants are involved?
   High and Low sorption, Organics and Metals

8. Are nonaqueous liquids present?
   Yes, Some more dense than water and some less dense than water.

9. What are the aquifer materials?

   Silt Sand

10. Describe special features of interest.

11. What stage in the study/design/implementation process is this site? Is extraction in progress?
    Study stage -- pump and treat being re-evaluated

12. Dates of ROD or other milestones

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